

Applicants: Y.S. Fung et al.
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REMARKS

This Amendment responds to the Office Action dated July 10, 2009, in which the Examiner rejected claims 1 and 3-17 under 35 U.S.C. §103(a). In response, applicants have amended claim 1 and by reference the other dependent claims. Support for the amendment may be found throughout the application, and in particular on page 5, 1st paragraph. Applicants request reconsideration and reexamination of the application in view of the foregoing amendments and the following remarks.

The Examiner has rejected claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over December. The Examiner states that December relates to an anodic electrodeposition method, and discloses a method that comprises immersing a conductive workpiece in a basic electrophoretic bath which has an emulsion of polymer particles sizes between 0.05 to 5 microns (or 50 to 5000 nm), preferably less than 2.0 microns; an electroconductivity between 0.1 to 5 mS/cm (or 100 to 5000 μ S/cm); having a pH of 7.9; and containing a coalescing solvent in an amount between 0 and 15 wt%, preferably from 0.5 to 2.0 wt%. The Examiner further contends that Example 5 of December discloses the claimed coating method and that it has been held that the disclosure of any value within the claimed range is an anticipation thereof and that an overlapping range in a reference creates a *prima facie* case of obviousness.

In a related rejection, the Examiner also states that December discloses the coating process and the curing thereof, and that any differences between December and the claimed invention would have been obvious, as would be adjustments to variables in the

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process.

Applicants respectfully request reconsideration of the rejection, and maintain that the invention as defined by the amended claims would not have been obvious over the cited reference. December states that to form an effective anodic electrocoating, one must have at least one carbamate functional group therein (December, col. 1, line 66 - col. 2, line 5), or one must resort to melamine formaldehyde, polyisocyanate, or another disadvantageous cross linking agent, and even then one can expect a coating of poor overall corrosion and chip resistance (December, col. 1, lines 27-43).

This insistence by December that the emulsion polymer include at least one carbamate group teaches away from the claimed invention. Applicants omit any carbamate group but achieve an anodic nanoemulsion having superior coating properties and corrosion resistance. In addition, December uses a drawing voltage of 50 to 100V (Example 5), whereas the present invention, as defined in claim 7, uses a voltage of 10 to 30V, a significant energy saving in carrying out the electrophoretic bath operation. Further, the Examiner asserts that December uses a pH of 7.9, but applicants note that December uses a polymer having an acid number of 20 to 80, preferably 30 to 35. In other words, December uses an acidic polymer and neutralizes it using an alkaline bath during preparation. Further, applicants use an electrophoretic bath, with no organic solvents needed to fine tune the bath. December, on the other hand, appears to use about 4.9% organic solvent in Example 1, and more than 50% organic solvent in Example 3, despite December's stated desire to reduce volatile organic compounds (VOC's) (December, col. 1, lines 47-49). Applicants' claimed invention, on the other hand, limits organic solvents to

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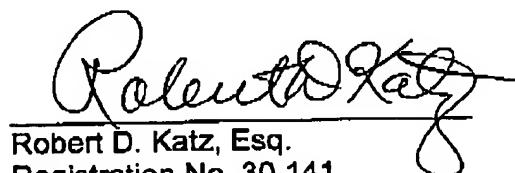
about 1% or less.

As such, it seems plain that the method discussed in December teaches away from the claimed invention in requiring an anodic polymer having at least one carbamate group, while producing an emulsion that requires a significantly higher energy input to effect workpiece coating in its manufacturing process and while appearing to require significant amounts of organic solvents. Applicants submit, therefore, that the subject obviousness rejections based on December are misplaced. Applicants respectfully request that they be reconsidered and withdrawn.

The Director is authorized to charge any fee required in connection with this response to Deposit Account No. 03-3125. If any extension is required in connection with the filing of this response, applicants hereby request same and authorize the fee therefor to be charged to Deposit Account No. 03-3125.

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Respectfully submitted,



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